

## CLAIMS

- 1) A process for the oxidation of an organic compound, said process comprising reacting the organic compound to be oxidized with a reaction medium comprising a metalloporphyrin and an oxidizing agent in an inert aprotic solvent selected from a polyhalogenated aliphatic or aromatic solvent, and recovering and identifying the desired reaction products,  
with the proviso that the inert aprotic solvent is not dichloromethane, dichloroethane or trichloroethane.
- 2) Process according to claim 1, wherein the inert aprotic solvent is a polyhalogenated aromatic solvent.
- 3) Process according to claim 2, wherein the solvent is trifluorotoluene.
- 4) Process according to claim 1, wherein said reaction medium comprises an inert aprotic main solvent and a co-solvent capable of increasing the solubility of the organic compound in the reaction medium.
- 5) Process according to claim 4, wherein said co-solvent is a polar and poorly nucleophilic solvent.
- 6) Process according to claim 5, wherein said solvent is 2,2,2-trifluoroethanol or 1,1,1,3,3,3-hexafluoro-propan-2-ol.
- 7) Process according to claim 4, wherein the concentration of the co-solvent ranges between 1 and 30%.
- 8) Process according to claim 1, wherein said reaction medium comprises a biphasic solution.
- 9) Process according to claim 8, wherein said reaction medium comprises an inert aprotic main solvent and a co-solvent having the capability of transferring the organic compound from one phase to the other.
- 10) Process according to claim 9, wherein the co-solvent is hexafluoroisopropanol.
- 11) Process according to claim 8, wherein said reaction medium includes a

first aqueous phase comprising the oxidizing agent and a second organic phase comprising the organic compound and a metalloporphyrin in an inert aprotic solvent.

5 12) Process according to claim 11, wherein said second phase comprises an inert aprotic main solvent and a co-solvent having the capability of transferring the oxidizing agent from one phase to the other.

13) Process according to claim 12, wherein said co-solvent is water-miscible.

10 14) Process according to claim 12, wherein said co-solvent is 1,1,1,3,3,3-hexafluoro-propan-2-ol.

15) Process according to claim 8, which comprises introducing a phase-transfer catalyst into the reaction medium, said phase-transfer catalyst having the capability of allowing the transfer of reactants from one phase to the other.

15 16) Process according to claim 15, wherein the phase-transfer catalyst is a tetraalkyl ammonium salt.

17) Process according to claim 16, wherein the tetraalkyl ammonium salt is dodecyl-trimethyl-ammonium bromide.

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